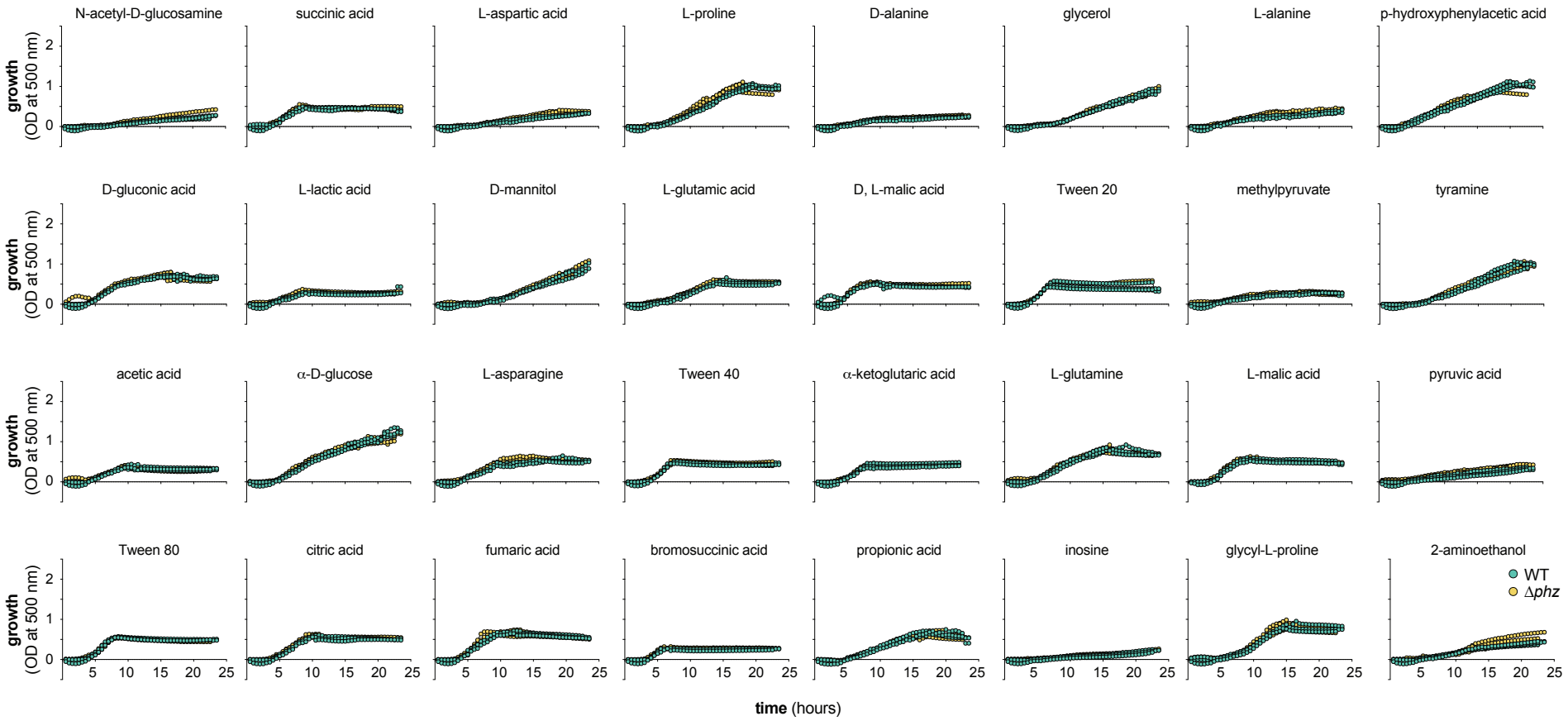


**Figure S1. Growth of WT and Δ*phz* in phenotype microarray plates**. 32 of the 95 provided carbon sources supported growth of PA14 strains containing the full complement of terminal oxidases (WT and Δ*phz*). Each trace corresponds to a biological replicate, with WT shown in green and Δ*phz* shown in yellow. Growth was assessed by measuring OD at 500 nm every 30 minutes for 20-24 hours.

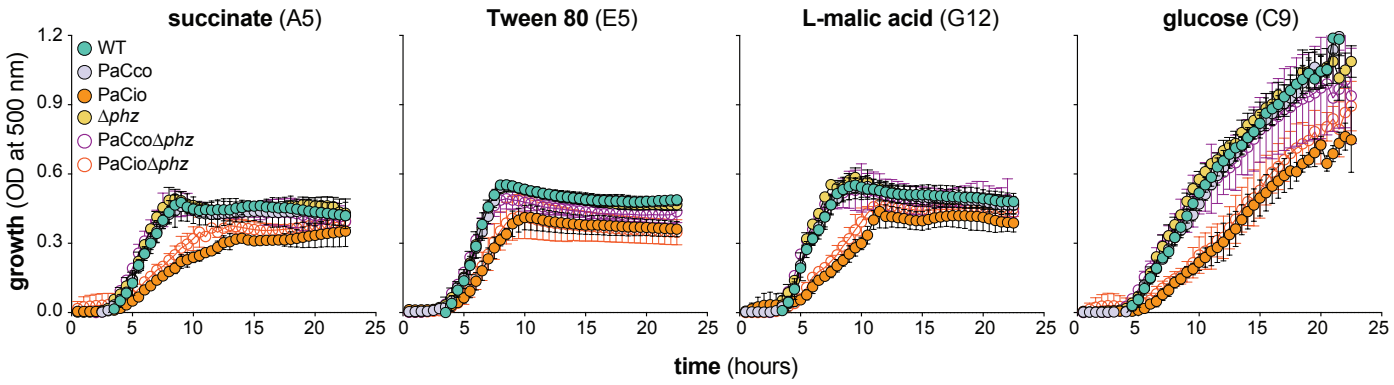


**Figure S2. Growth of WT, Δ*phz*, and terminal oxidase mutant strains in phenotype microarray plates.** Representative growth curves of WT, Δ*phz*, PaCco, PaCcoΔ*phz*, PaCio, and PaCioΔ*phz* showing a general growth defect exhibited by PaCio and PaCioΔ*phz*. Growth was assessed by measuring OD at 500 nm every 30 minutes for 20-24 hours. OD values at 500 nm of a well containing no carbon source (A1) were subtracted from each respective data point. Plotted data represent the mean of three biological replicates and error bars denote standard deviation and are not drawn in instances where they would be obscured by point markers.

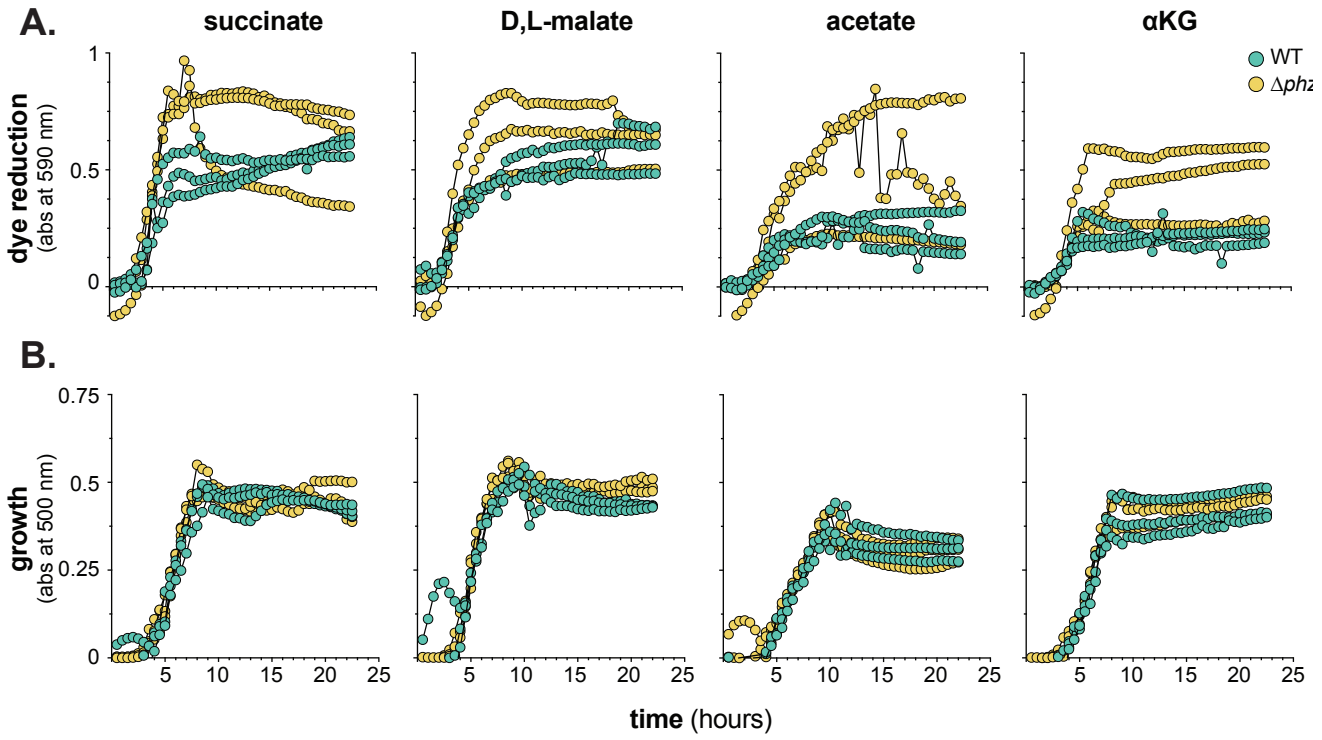


**Figure S3. Phenazines influence tetrazolium dye reduction.** Dye reduction **(A)** and growth **(B)** patterns of WT (green) and Δ*phz* (yellow) strains in succinate, D,L-malate, acetate, and α-ketoglutarate (αKG). Each trace corresponds to a biological replicate, and representative curves are shown in **Figure 1B**.

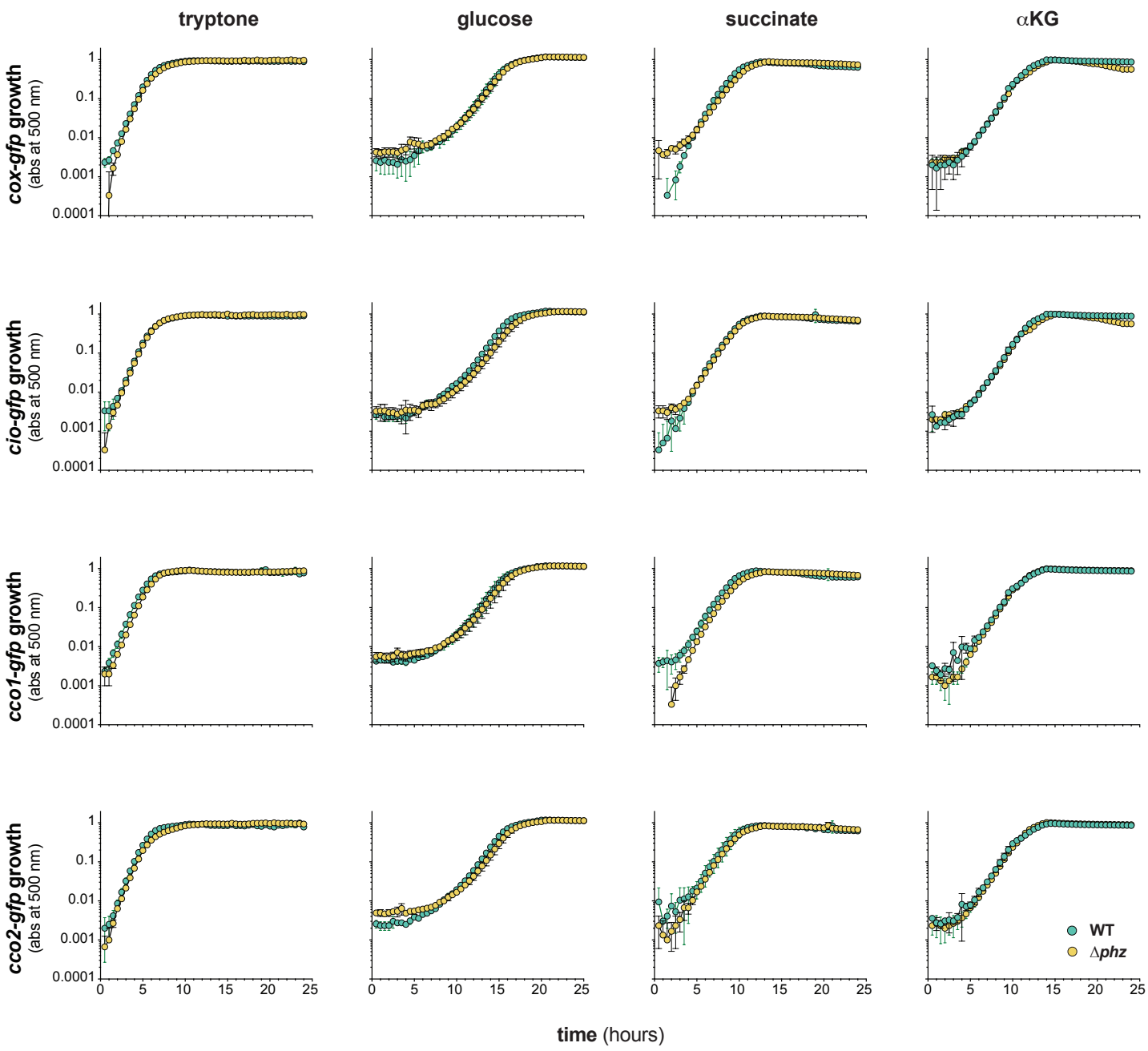


**Figure S4. Growth curves of terminal oxidase reporters.** Mean cell density values of reporter strains engineered to express GFP under the control of the *cox*, *cio*, *cco1*, or *cco2* terminal oxidase promoter during liquid culture growth on tryptone, glucose, succinate, or αKG. Corresponding reporter expression data are shown in **Figure 3**. Data represent the mean of three biological replicates and error bars denote standard deviation and are not drawn in instances where they would be obscured by point markers.


**Figure S5. Thickness of WT and Δ*phz* colony biofilms grown on different carbon sources.** Mean thicknesses of WT and Δ*phz* biofilms grown on tryptone, glucose, succinate, and αKG. Each individual data point represents a biological replicate. Error bars denote standard deviation.

| **liquid** | PYO | | | PCN | | | PCA | | |
|---|---|---|---|---|---|---|---|---|---|
| | mean | SD | n | mean | SD | n | mean | SD | n |
| tryptone | 26.52 | 2.95 | 10 | 0.18 | 0.38 | 10 | 5.59 | 1.31 | 10 |
| glucose | 6.30 | 4.03 | 8 | 0 | 0 | 8 | 55.67 | 22.54 | 8 |
| succinate | 20.56 | 2.91 | 10 | 0 | 0 | 10 | 0.42 | 0.57 | 10 |
| αKG | 20.54 | 2.34 | 10 | 0 | 0 | 10 | 1.92 | 0.99 | 10 |

| **biofilm** | PYO | | | PCN | | | PCA | | |
|---|---|---|---|---|---|---|---|---|---|
| | mean | SD | n | mean | SD | n | mean | SD | n |
| tryptone | 15.66 | 9.08 | 6 | 83.37 | 28.50 | 6 | 17.94 | 9.74 | 6 |
| glucose | 1.43 | 2.45 | 7 | 113.64 | 41.08 | 7 | 279.04 | 39.03 | 7 |
| succinate | 19.08 | 2.05 | 6 | 38.89 | 23.37 | 6 | 34.96 | 3.03 | 6 |
| αKG | 0 | 0 | 9 | 4.96 | 1.75 | 9 | 63.53 | 8.72 | 9 |

**Figure S6. Phenazine production by *P. aeruginosa* PA14 in carbon sources of interest.** Concentrations of phenazine-1-carboxylic acid (PCA), phenazine-1-carboxamide (PCN), and pyocyanin (PYO) produced by WT on tryptone, glucose, succinate, and αKG. Mean values are represented in **Figure 5B**.

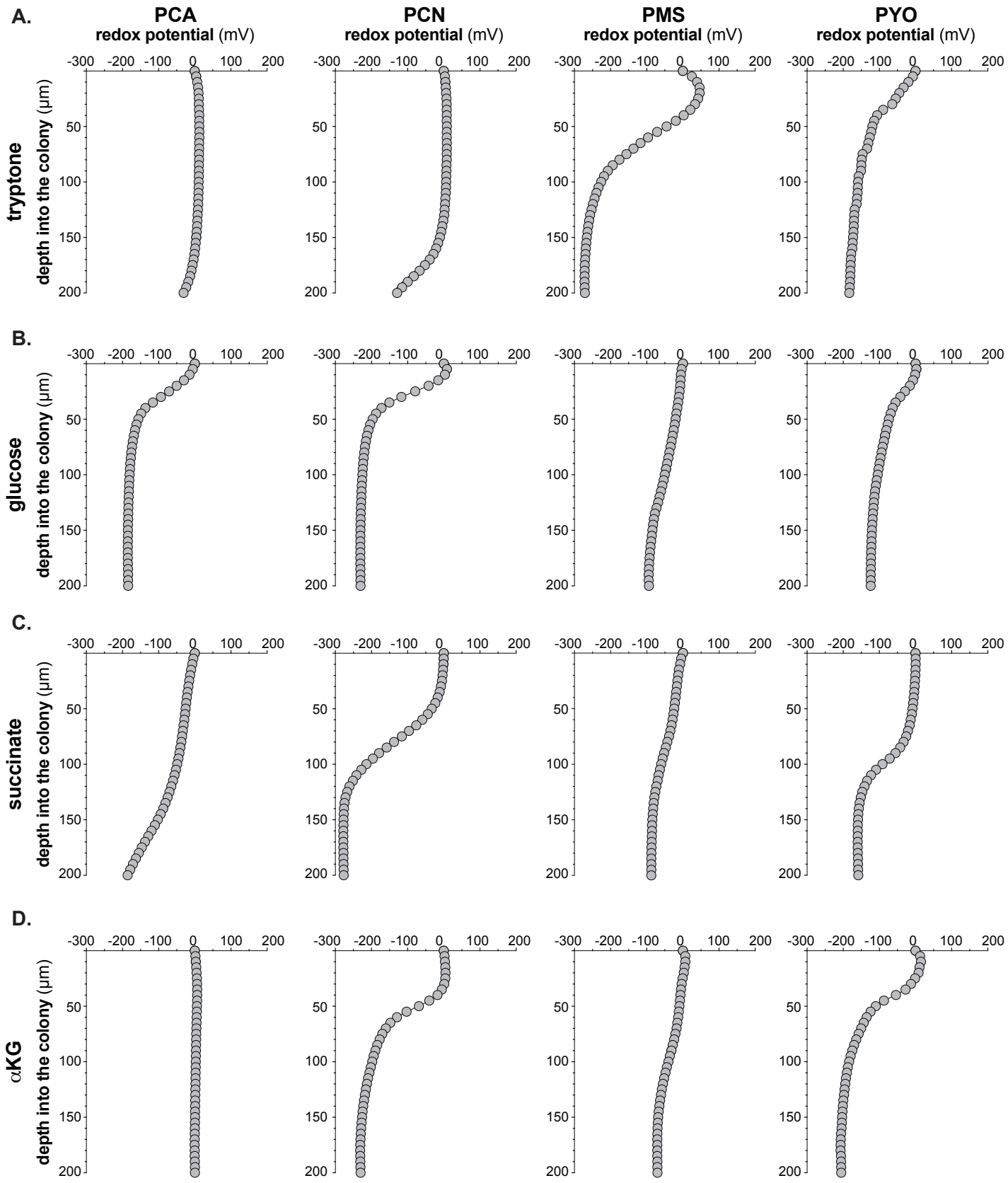
A.
PCA
PCN
PMS
PYO
redox potential (mV)
-300 -200 -100 0 100 200
depth into the colony (µm)
50 100 150 200
tryptone
B.
glucose
C.
succinate
D.
αKG

**Figure S7. Exogenously provided phenazines exhibit different reduction patterns than those produced endogenously.** Change in redox potential across depth for Δ*HMS*Δ*phz* colony biofilms grown for three days on tryptone **(A)**, glucose **(B)**, succinate **(C)**, and αKG **(D)** amended with purified phenazine-1-carboxylic acid (PCA), phenazine-1-carboxamide (PCN), phenazine methosulfate (PMS; a synthetic analog of the endogenous phenazine 5-Me-PCA), or pyocyanin (PYO). Data are representative of at least six biological replicates.